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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/419,005	10/13/1999	JEFFREY M. STIBEL	SIK-101	9572

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EXAMINER

HWANG, JOON H

ART UNIT	PAPER NUMBER
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2172

DATE MAILED: 03/14/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/419,005

Applicant(s)

STIBEL, JEFFREY M.

Examiner

Joon H. Hwang

Art Unit

2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5,9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ginsberg (A unified approach to automatic indexing and information retrieval, IEEE, Oct. 1993, pages 46-56).

With respect to claim 1, Ginsberg discloses an indexing and information retrieval for aiding a user in developing a search request (page 46 and left column on page 47). Ginsberg discloses an interface for collecting from the user a keyphrase representative of a user search request (right column and fig. 1 on page 47 and fig. 5 on page 54). Ginsberg discloses analyzing the user search request to identify at least one meaning (word sense) associated with the user search request ("Query interpretation" section on pages 53-54). Ginsberg discloses generating an expanded search request ("Conjunctive expressions" section on pages 54-55). Ginsberg does not explicitly disclose a step for providing the expanded search request to a search engine capable of identifying information associated with the expanded search request. However, Ginsberg discloses retrieving information based on the expanded search request (fig. 1 on page 47, fig. 2 on page 48, and fig. 5 on page 54). This teaches providing the expanded search request to a search engine for information retrieval. Therefore, based

on Ginsberg, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the expanded search request to a search engine in order to retrieve information associated with the expanded search request.

With respect to claim 2, Ginsberg discloses a source of profile data representative of information (WorldLattice) that may be displayed to the user for guiding the user to supply information for refining the user search request (fig. 2 on page 48 and "Lattice-structured thesauri" section on pages 48-49).

With respect to claim 3, Ginsberg discloses category information capable of being selected by the user to identify a topic associated with the user search strategy (fig. 2 on page 48 and "Overview of WorldViews" section on pages 47-48).

With respect to claim 4, Ginsberg discloses subcategory information capable of being displayed to the user in response to the user selection of category and capable of providing information for refining the user search strategy (fig. 2 on page 48).

With respect to claim 5, Ginsberg discloses analyzing the user search request for determining whether a plurality of meanings may be associated with the user search request ("Using locality for word sense disambiguation" section on pages 49-52, table 1 on page 52, and "information retrieval" section on pages 53-56).

With respect to claim 6, Ginsberg discloses matching a portion of the keyphrase to a linguistic database to identify a list of associated meanings (word senses, "Query interpretation" section on pages 53-54).

With respect to claim 7, Ginsberg discloses generating a display that presents to the user a plurality of meanings associated with the keyphrase to aid the user in

disambiguating between the plural meanings ("Query interpretation" section on pages 53-54 and fig. 5 on page 54).

With respect to claim 8, Ginsberg discloses generating a menu of choices that can be selected by the user to assign at least one of the associated meanings to the keyphrase (fig. 5 on page 54).

With respect to claim 9, Ginsberg discloses adjusting the user interface as a function of the associated meaning to present to the user a request (a request for selection) for information for refining the user search request (fig. 2 on page 48 and fig. 5 on page 54).

With respect to claim 10, Ginsberg does not explicitly disclose employing associated meanings to the keyphrase from the user. However, Ginsberg discloses generating, updating, and building a lattice-structured thesaurus (a linguistic database for the user representative of keyphrases), which human interventions may be involved, due to the increasing lexical entries ("Lattice-structured thesauri" section on page 48 and "Experimental results" section on pages 52-53). Ginsberg further discloses the lattice-structured thesaurus is a lattice of word senses or concepts (associated meanings, "Properties of lattice-structured thesauri" section on pages 48-49). This teaches the user representative of keyphrases and associated meanings. Therefore, based on Ginsberg, it would have been obvious to one having ordinary skill in the art at the time the invention was made to generate, update, and building the lattice-structured thesaurus by human interventions in order to increase disambiguation performance of the system.

With respect to claim 11, Ginsberg does not explicitly disclose accessing demographic information associated with the user for generating the expanded search request. However, Ginsberg discloses a user interest profile (demographic information) and this can be easily utilized (middle column on page 46) for expanding the search request to retrieve information. Therefore, based on Ginsberg, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the user interest profile in order to expand the search request based on search concepts of user, so that intended information can be retrieved.

With respect to claim 12, Ginsberg discloses accessing a lattice-structured thesaurus (a linguistic knowledgebase) having information representative of a list of sense signals (broader term (BT), narrower term (NT), related term (RT), generalization, and word senses) and a list of words ("Properties of lattice-structured thesauri" section on pages 48-49, fig. 4 on page 53, and "Information retrieval" section on pages 53-56).

With respect to claim 13, Ginsberg discloses identifying a sense signal associated with the keyphrase by accessing the linguistic knowledgebase (a lattice-structured thesaurus) with the keyphrase (fig. 1 on page 47 and fig. 2 on page 48).

With respect to claim 14, Ginsberg discloses expanding the user search string by employing information from the linguistic knowledgebase (fig. 2 on page 48 and fig. 5 on page 54).

With respect to claim 15, Ginsberg discloses a lattice-structured thesaurus (a linguistic knowledgebase) having information representative of a list of sense signals (broader term (BT), narrower term (NT), related term (RT), generalization, and word

senses) and a list of words ("Properties of lattice-structured thesauri" section on pages 48-49, fig. 4 on page 53, and "Information retrieval" section on pages 53-56). Ginsberg discloses an interface for collecting from the user a keyphrase representative of a user search request (right column and fig. 1 on page 47 and fig. 5 on page 54). Ginsberg discloses generating an expanded search request ("Conjunctive expressions" section on pages 54-55) with the keyphrase by accessing a lattice-structured thesaurus (a linguistic knowledgebase, fig. 2 on page 48). Ginsberg does not explicitly disclose a step for providing and processing the expanded search request to a search engine capable of identifying information associated with the expanded search request. However, Ginsberg discloses retrieving information based on the expanded search request, which may be Boolean search requests (fig. 1 on page 47, fig. 2 on page 48, fig. 5 on page 54, and fig. 6 on page 55). This teaches providing the expanded search request to a search engine for information retrieval. Therefore, based on Ginsberg, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the expanded search request to a (at least one) search engine in order to retrieve information associated with the expanded search request.

With respect to claim 16, Ginsberg discloses adjusting the interface, as a function of information accessed from the linguistic database, for guiding the user in disambiguating between meanings for the keyphrase ("Query interpretation" section on pages 53-54, fig. 2 on page 48, and fig. 5 on page 54).

With respect to claim 17, Ginsberg does not explicitly disclose employing associated meanings to the keyphrase from the user. However, Ginsberg discloses

generating, updating, and building a lattice-structured thesaurus (a linguistic database for the user representative of keyphrases), which human interventions may be involved, due to the increasing lexical entries ("Lattice-structured thesauri" section on page 48 and "Experimental results" section on pages 52-53). Ginsberg further discloses the lattice-structured thesaurus is a lattice of word senses or concepts (associated meanings, "Properties of lattice-structured thesauri" section on pages 48-49). This teaches the user representative of keyphrases and associated meanings. Therefore, based on Ginsberg, it would have been obvious to one having ordinary skill in the art at the time the invention was made to generate, update, and building the lattice-structured thesaurus by human interventions in order to increase disambiguation performance of the system.

With respect to claim 18, Ginsberg does not explicitly disclose identifying and accessing demographic information associated with the user for generating the expanded search request. However, Ginsberg discloses a user interest profile (demographic information) and this can be easily utilized (middle column on page 46) for expanding the search request to retrieve information. Therefore, based on Ginsberg, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the user interest profile in order to expand the search request based on search concepts of user, so that intended information can be retrieved.

With respect to claim 19, Ginsberg discloses category and subcategory information capable of being displayed and selected by the user to identify a topic

associated with the user search strategy (fig. 2 on page 48 and "Overview of WorldViews" section on pages 47-48). Further, Ginsberg discloses generating an expanded search request ("Conjunctive expressions" section on pages 54-55). This category and subcategory information in generating an expanded search request teaches controlling the type of expanded search requests that can be generated.

With respect to claim 20, Ginsberg discloses processing the keyphrase to generate a plurality of expanded search requests, each capable of identifying information within a database (fig. 2 on page 48 and fig. 5 on page 54).

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jacquemin et al. (U.S. Patent No. 6,101,492), Miller et al. (U.S. Patent No. 5,926,811), and Dharap (U.S. Patent No. 6,256,633 B1) disclose expanding a search request.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joon H. Hwang whose telephone number is 703-305-6469. The examiner can normally be reached on 9:30-6:00(M~F).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y Vu can be reached on 703-305-4393. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-5397 for regular communications and 703-308-5397 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Joon Hwang
January 13, 2002



KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

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